

Exercise walk-through

2.1

Equilibrium, elasticity and intervention: supported rehearsal

International Baccalaureate · IB Diploma · Economics · HL

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The method

Method — Worked example

Equilibrium joins quantity demanded and supplied at one price. An own-price change moves along a curve; a changed determinant shifts it. Elasticity uses proportional changes, not the slope alone. A tax creates a wedge between consumer and producer prices; incidence depends on relative responsiveness.

Task: price rises from 10 to 12 currency units and quantity demanded falls from 100 to 90 units. Use the original-value percentage convention to compute PED and interpret revenue.

Percentage price change $= (12 - 10) / 10 \times 100\% = 20\%$. Percentage quantity change $= (90 - 100) / 100 \times 100\% = -10\%$. $PED = \% \Delta Q_d / \% \Delta P = -10\% / 20\% = -.5$, dimensionless. Revenue initially $= 10 \times 100 = 1,000$ units; finally $= 12 \times 90 = 1,080$ units. Demand is inelastic over this change under this convention.

Method — Worked example

An own-price change moves along a curve; a changed determinant shifts it.

Tax burden in the worked case

Original price: 10

Consumer price after tax: 12

Producer receipt after tax: 9

Tax wedge = $12 - 9 = 3$



Compared with the original price, buyers bear more.

Exercises 2.1·3.1

2.1 For the worked case, identify the evidence and a conclusion it can support. Explain one material limit. [3]

3.1 Advertising changes while price rises and sales fall. Can the observed ratio identify PED on one demand curve? Give a reasoned answer, evidence or method, and a relevant qualification. [3]

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2.1 Percentage price change = $(12 - 10) / 10 \times 100\% = 20\%$. Percentage quantity change = $(90 - 100) / 100 \times 100\% = -10\%$. PED = $\% \Delta Q_d / \% \Delta P = -10\% / 20\% = -0.5$, dimensionless. Revenue initially = $10 \times 100 = 1,000$ units; finally = $12 \times 90 = 1,080$ units. Demand is inelastic over this change under this convention. Authored points for identifying relevant evidence, explaining a supported inference and a material limit.

3.1 Advertising changes while price rises and sales fall. Can the observed ratio identify PED on one demand curve? Give a reasoned answer, evidence or method, and a relevant qualification. [3]

3.1 Advertising can shift demand, so the two observations may not lie on the same curve. The percentage ratio is arithmetic but cannot isolate the own-price response without other determinants controlled or accounted for. Explain the movement/shift distinction. Authored points for a relevant judgement, reason tied to the case and justified qualification or method. Accept a supported alternative.